

The background of the entire page is a monochromatic blue-tinted photograph. It depicts two individuals in a dynamic, expressive pose. On the left, a person with curly hair, wearing a dark and light horizontal striped long-sleeved shirt and dark jeans, is looking upwards and to the left with their arms extended. On the right, another person is lying on their back on the floor, wearing a light-colored long-sleeved shirt and dark pants, with their arms raised and legs bent in a fluid, dance-like movement. The setting appears to be an indoor space with a wooden floor and some architectural elements in the background.

POZE

Project: M1.1, DP, Connecting Realities

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Client: Effenaar

Abstract

POZE is an interactive, cooperative experience. In this project we focussed on the HITSZONE party at the Effenaar. HITSZONE is a late 90's - early 00's theme party. Our concept focuses on syncing players' emotions by making them collaborate. Moreover, POZE maintains the players' and viewers' moods elevated while they take a break from the crowd. Due to postural feedback (adopting body postures associated with excitement), the audience remains hyped and in sync. Finally, POZE also aims at breaking the ice between strangers and giving people incentive to socialize. In the experience, groups of 2 to 5 people have to work together to cover all the shapes on the screen with the help of a digital shadow and make them explode. This will allow them to continue through a musical timeline from the 90's-00's. The funny, weird poses creates a fun, collaborative interaction with each other and with the experience. At the end of the play, participants get pictures with their poses to share on social media and have new memories with their (new) friends!

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Introduction

This report presents the design of POZE, an interactive, collaborative experience created for the HITSZONE party. The client for this project is the Effenaar, a smart venue located in Eindhoven, Noord Brabant, the Netherlands. The representative specialist for our client is Jos Feijen, director of the Effenaar.

The client proposed three challenges, one of which was described as an involving experience for the audience at the HITSZONE party. The HITSZONE event is held four times a year at the Effenaar and it is a late 90's - early 00's themed party. Its audience consists of early to mid 30's adults.

The team of designers is formed by Irina Bianca Serban and Luuk Roelofs, first year Master students at the Technical University Eindhoven, department of Industrial Design. The project has been developed over a period of 16 weeks. More about the design process can be found in the section "Process".

POZE is an experience placed outside the HITSZONE party. The audience can enjoy POZE while taking breaks from the business of the crowd.

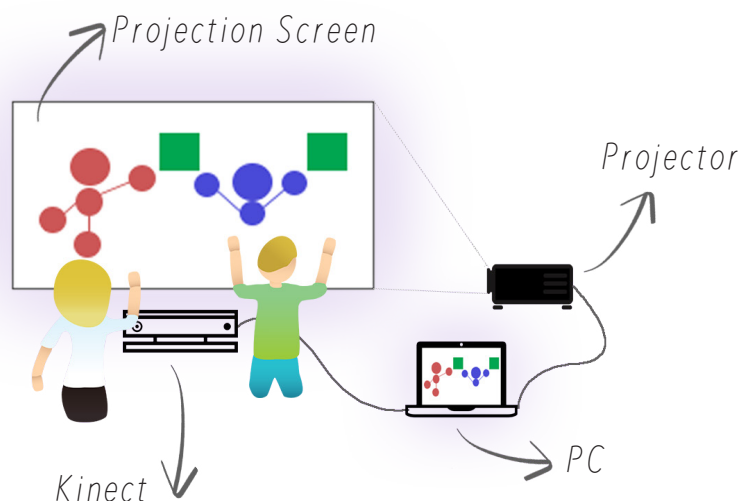
As one can observe in **Figure 1**, POZE is an interactive gamification based on a simple concept.

POZE works with Kinect, a motion sensing input device for Xbox One created by Microsoft Inc. Kinect detects the bodies of users in front of its camera and outputs on the screen of the projection the "digital shadows" of the users. With the help of Processing, these shadows can interact in the digital world with squares projected on the screen. The dynamics of POZE are described in more detail in the section entitled "Final Concept".

The objectives of POZE are strongly related to the whole theme and scope of the HITSZONE party. By keeping up the same 90's-00's theme, POZE keeps the participants' moods elevated while taking a break, helps them sync their emotions through cooperation and breaks social barriers between strangers. Theory backing up these scopes can be found in the section "Research". A user test in the small hall of the Effenaar has been conducted and feedback together with data about the emotional state of the participants have been gathered. More about this topic can be found the section "User Test".

Since this project has been received very well by our client, it will be taken further and future implementations will be performed. In the section "Future", more details regarding this are provided.

Figure 1



Summary

The main purpose of our design has been syncing emotions through cooperation within the audience of the HITSZONE party. Adding to this, we decided that our design should also keep up or bring back the excitement of the participants while taking breaks. Therefore, we researched into the field of *emotional contagion* - how emotions can be transmitted from one group member to the rest of the group and what are the causes of this - and *group emotions* - how they can be influenced and intensified. This knowledge was taken into account before prototyping. Moreover, the knowledge was deepened during the design process and information about how alcohol influences emotions in casual drinkers drinkers has been gathered. Several improvements have been performed accordingly.

In this section, one paper on emotional contagion, one on the emotional state of casual drinkers and one on group emotions will be presented.

Papers

Emotional contagion is a very popular subject among researchers and many papers have been written about it. In short, emotional contagion can be described as the tendency to synchronize one's emotions with another person's emotions.

The selected paper on emotional contagion talks about the primitive emotional contagion. The term "primitive" refers to the unconscious, involuntary, automatic process. Since POZE is a side activity for a party and the players' thinking will, most probably, not be the clearest, their attention will mostly be directed towards the experience and not the other players. Therefore, the process of emotional mimicry will happen unconsciously.

The paper in question is called "Primitive Emotional Contagion" [1] and it explains the mechanisms behind this process. It first identifies the cause of unconscious emotional contagion as undeliberate mimicry. It has been discovered a long time ago that in conversations, people imitate the movements, facial expressions, rhythm of talking and body movement of the person they are listening and talking to. This mimicry sends afferent feedback to the central nervous system about certain emotions associated with certain facial expressions/ body postures/ vocal expressions and so the individual draws inferences about the way they feel depending on the way they act.

Research

Research

The authors go on by explaining a few theories which illustrate the movement mimicry among individuals: facial mimicry, vocal synchrony and movement coordination. Facial mimicry stands for the urge to imitate the facial expressions people see around. Vocal synchrony refers to the synchronization of the conversational rhythms between people, while movement coordination refers to the coordination of the flow of movements belonging to the people who are interacting.

As this mimicry sends afferent feedback which is translated into emotions, three hypothesis are presented: facial feedback hypothesis, vocal feedback hypothesis and postural feedback hypothesis. The facial feedback hypothesis says that the emotional experience is profoundly affected by the facial muscles. The vocal feedback hypothesis is exemplified through an experiment where people's moods were influenced by sounds they were asked to reproduce. Last but not least, the postural feedback hypothesis states that people's emotions are influenced by body postures associated with different emotions. The later one proved to be very useful while designing our concept.

Valuable conclusions of the paper state that primitive emotional contagion is most likely to happen to people who regard themselves in terms of the interrelatedness with the others. That is, more specifically, people who do not construe themselves in terms of their independence and uniqueness, but rather in terms of their common traits with

the group. In our case, this applies: the participants of POZE perceive themselves with regard to the common interests - 90's and 00's music - and common goal - covering the shapes on the screen - of the group they are playing with.

Another useful conclusion drawn by the authors states that people who tend to mimic facial/postural/verbal expressions should be susceptible to primitive emotional contagion. Because of the nature of POZE, the players will automatically adopt similar poses and, therefore, mimic each other's body positions.

Moreover, considering that POZE is designed for a party where the audience will most probably consume alcohol, we conducted some research on how social drinking can influence the emotional state of an individual. In the paper entitled "Alcohol and Group Formation: A Multimodal Investigation of the Effects of Alcohol on Emotion and Social Bonding" [2], 720 social drinkers were assembled into groups of 3 unacquainted persons each and given a moderate dose of an alcoholic, placebo, or control beverage, over 36 min. Their social interactions were video recorded. Findings showed that alcohol-consuming groups enhanced group smiling and sequential speaking. Therefore, participants who consume alcohol are more exposed to synching their facial and vocal expressions and, therefore, more prone to emotional contagion, as mentioned in the previous paragraph.

As previously written, the postural feedback hypothesis has proven to be very useful in finding a cause for the excitement people feel while taking part in POZE. A body posture mostly associated with excitement is typically when an individual raises their hands up. Because most poses in the game require the subject to raise their hands, automatically these postures will influence the excitement of the participants.

Now that we have documented how POZE participants feel excited and how they sync the excitement among each other, we are now going to back up the assumption that cooperation helps them share the same emotions.

In the article "Dynamics of Group-Based Emotions: Insights From Intergroup Emotions Theory" [3], group-based emotions are discussed - those that occur when people identify with social groups and appraise events in terms of their implications for those groups. The model the authors use is based on the social identity perspective - it holds that groups with which people socially identify become part of a person's "social identity" - in this case, people experience group-based emotions. The authors' fundamental assumptions about emotion follow appraisal theories - emotions derive from appraisals of objects and events in the environment.

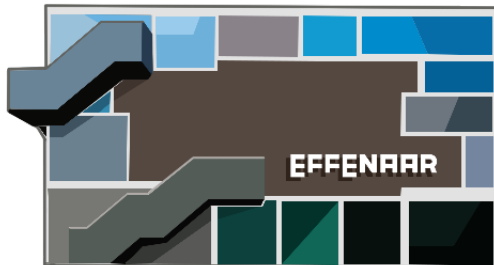
Therefore, group-based emotions tend to be shared within a group, and shared even more strongly by members who identify more with the

group. Their major conceptual claim of intergroup emotions theory is the following: emotions can be elicited by events that affect groups with which people identify. The authors go on by stating that situations or events that remind people of valued group memberships will influence their emotions.

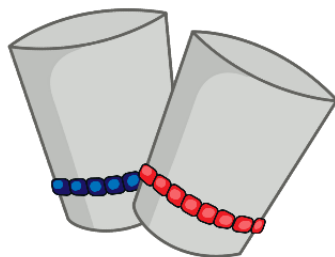
In our case, the group is represented by the group of players, the "event" is represented by POZE and the identification with the group is done through cooperation: the individual identifies with the rest of the players because of having the same goal (covering all the shapes) and this common achievement reminds people of valued group membership and, therefore, influences their emotions. On top of that, it has also been proven that alcohol-drinking groups have a stronger sense of social bonding following that they identify more with the group they are in. Therefore, they are prone to feeling the group-emotion (the excitement) more intensely.

Process

In the beginning of our project we were given a presentation from the "Effenaar", our client, about the different possible projects. We firstly chose to go with "Next level artist" which focused on the connection between the DJ and the audience.



In a two hour pressure cooker we came up with a concept: lights in every cup controlled by the DJ. This would create a connection between the DJ and the audience and the DJ could play with different groups of the audience. With this concept we also wanted the DJ to use the back and sides of the audience, instead of only using the front part in front of his stage. Besides this, this concept would entice people to buy a drink, since bar revenue is the most important income for the Effenaar.



After coming up with this concept, we got in contact with Nick Verstand (Dutch visual artist) and the TNO (Dutch institute of scientific research). Nick Verstand designed a light and sound installation to help TNO gather data for their new algorithm using the following technology: three biosensors -

brainwave sensor, heart rate sensor and skin conductivity sensor - which translate the input into human emotions with the help of the Circumplex Model.

We took part in their experiment and found TNO's technology very interesting. We arranged a meeting with Harrie van de Vlag, researcher at TNO, and found out more information about the input and output of the sensors and the algorithm they are using. We decided to collaborate and use their data. We wanted to visualise the data they gathered for the audience at the Effenaar to control with the help of the sensors. However, we reached the conclusion that it would be difficult for the average public to understand the visualisation since people are not really aware of their emotions. Moreover, emotions change quite slowly over time, and, thus, a change in visual effects would not be noticed easily.

Further into the conceptualization phase, we came up with the Effenaar Community concept. The idea was that people could get an emotion reading bracelet before the show. The emotions could control the atmosphere.



We would use simple data to visualise. After the show, everybody could give back the bracelet and enter the Effenaar Community represented by a digital network. However, after asking for feedback from Jos Feijen on this concept we came to the conclusion there was no real reason for people to keep in touch after an event.

POLARIS

Besides this, Nick Verstand had a similar concept with his project entitled Polaris. Jos's opinion stated that this would be difficult to materialize and Nick Verstand's concept did not translate well because people did not see the connection between their emotions and the atmosphere.

In this meeting with Jos Feijen, we also learned that very often, in a festival setting, people need a break from the festival hall and crowd. Frequently, people go outside and sit somewhere, their energy level decreases and their mood goes down. We learned this sometimes constitutes a problem for the Effenaar.

Finally, we conducted further research about people's emotions and how they can be transferred within groups. We found that group members tend to exchange emotions. Additionally, we found that when people identify with a group, they experience the group emotion more intensely. We made a

connection with the fact that when group members work together towards one goal, they have a stronger sense of belonging to the group and, therefore, they identify more with the group.

Subsequently, we decided on our ultimate objective: helping people sync their emotions by giving them a goal they can only achieve by cooperating.

We did not want to make this into a game. However, we came to the conclusion it should be a challenge that encourages people to cooperate and work together, but not compete with each other. This activity would take place in a separate place next to the party.



After the Midterm Demo Day we decided we would not use TNO's equipment anymore. This was mostly because we learned from Nick Verstand's AURA project that the sensors are very prone to error, especially when the subject does not sit still. Besides, there was no real need to measure emotion anymore in such a way that it would add real value to our concept. This is why we decided to continue our project without the collaboration with TNO.

Process

Final concept

In our final concept, we focus on creating a cooperative, interactive experience for the HITSZONE party. We decided to focus on this because in a meeting with Jos Feijen we got to the insight that often people want to have a break from the crowd and the business of the festival/party. This is where our concept would come in. Our concept is a side activity for a big, thematic party to keep the audience energised and active during breaks.

Our concept focuses on collaboration. We wanted people to cooperate and create a new or a tighter bond among themselves. The goal of the experience, besides keeping people energised and entertained, is to also to make them work towards the same goal, and in this way, socialize more easily with each other. Given this, our concept additionally helps breaking the ice between strangers who play in the same group. With regard to the most important factor, collaboration, we deliberately did not make it into a game. We did not wish for competition in our concept because we wanted everyone to have a good time. We focused on creating a bond, not separation. For this reason, we did not include a scoring system or a timer in our prototype. We wanted to keep everyone on the same level. This would work towards the bonding process. We also wanted it to be fun to watch by others. This way it would become a side activity for the people playing, but also for those on the side, watching. For this project and with the Effenaar as our client we paid particular attention to a party called "HITSZONE". As described above, HITSZONE is a late 90's - early 00's seasonal party held at the Effenaar.

Our final concept is called POZE. It is a fun, interactive experience which works with Kinect. By stepping in front of the Kinect, POZE displays the player's body in the form of a colored skeleton with the face of someone famous from the the era of the party. Additionally, on the screen, a fixed number of shapes is displayed which react when they are touched by a skeleton. The theme of the party is conserved through a series of background pictures from music videos of that era and the corresponding songs.

POZE is aimed at teams of 2 to 5 participants. The aim of the experience is to touch all the squares displayed on the screen at the same time. Since the squares are too many and too distanced to be covered by one person, the players have to collaborate and find a creative way in which they can cover all the shapes. Once the shapes are all covered, the pattern is redrawn in random positions. The players need to "pop" the shapes three times in order to change the background picture and the song. In this way, the players go through a musical timeline of the 90's in a fun way.

After the experience, participants get a pictures of their group posing in random positions during the play. In this way, players who already know each other have created a new memory together. On the other hand, players who just met during POZE are sharing a funny picture together which might help them break the ice and share the experience.

After we finalized our concept and our final prototype, we arranged a user test at the Effenaar. We wanted to test all the assumptions of our concept and see if our prototype would work in a real scenario. For this we had to create the atmosphere of a real party. With the help of the Effenaar staff we were given permission to use the small hall and test our prototype.

We recreated a festival setting by using the gear provided by the Effenaar: disco lighting, smoke, a beamer, a screen and their audio system to get a good looking and immersive party atmosphere. This improved our user test because the participants were more engaged with the experience since the setting resembled a real scenario.



10 participants took part in the test. They were divided into groups of 2. Before the test, we asked the participants to fill in some questions (see the Appendix) about how they felt at that time: on a Linkert-type scale they had to rate their excitement, emotional arousal and positivity level. After this, we let the participants use our prototype. We told them to play it for as long as they wanted to or until they were bored. We did not explain the underlying scope since we wanted to see how they reacted to it and how long it took before they

understood it. When they got stuck, we helped them by explaining some extra tactics (e.g. the concept of a virtual shadow is similar to a real one - going forward enlarges the shadow, while going backward makes it smaller). Sometimes it was too difficult (i.e. the number of shapes on the screen were too many) and we had to start an easier version of our prototype. Generally, the participants enjoyed it a lot and wanted to keep playing. Most of the time we had to stop them ourselves because of time limitations.

User test and feedback

After the user test, we asked the participants to fill in the same questionnaire to see if there was any difference before and after the experience. We also asked them some open questions and recorded the answers to gather some valuable feedback about our prototype and concept (see the Appendix).

We conducted a thematic analysis on the feedback we received in order to detect any patterns and understand our data better. The themes and the results are explained in the paragraphs below. We found 6 different categories, namely: memory, context, fun, social barrier, physical activity and cooperation.

The first category we found was "*Memory*". A lot of participants mentioned that POZE would create funny memories, either in the physical form of a picture, the social form of a friendship or just in the form of a positive reminder of the party and the Effenaar. This feedback shows that we created a memorable experience.

The second category is "*Context*". We received a lot of feedback about the context of our concept. People gave feedback about the location or time our prototype would suit the best. Some said it should be outside somewhere in the afternoon at a festival to get people enthusiastic and hyped, others said it should be inside and late in the night at a party to keep people energised. We also got the feedback that it might be more difficult or different for drunk or tipsy people. This was something for us to consider.

The third category is "*Fun*". Many people told us it was really fun. They really had a good time and enjoyed themselves.

Memory

Great as a memory
I think I looked funny
A GIF or video would also be nice
Would like the picture for myself
It would add to the experience
A picture together is something to start talking about

Context

Nice side activity
Good for a break from the party
Would fit in a 90's theme festival
Might be difficult for drunk people
Should not take too long
Works with strangers

Fun

It is really fun to do
Nice to play endlessly
Never gets boring
Have a chill and fun time
The heads are very funny
Works against stress
You get happier

Social barrier

It's contagious
Broke the social barrier
Wouldn't drag someone in
Lower threshold to connect
Share the picture and invite for a drink
Don't have to go in a deep conversation
Would invite strangers to help me
Makes people closer to each other
Would be embarrassed to start
Would step in to help

Physical Activity

Keeps you active
You really have to stretch
You keep going and moving
You can not sit down and collapse
Challenged to get to a place
Wait for the other person
Freeze in a position
Good for exercising

Cooperation

We communicated well
You have to work together
See if you can get some extra squares
The middle ones you had to divide
Would love to play it with more
Didn't really communicate
Maybe separate the colors
Switch positions

This was also an important part of our concept, to make people have fun. We also got feedback on what parts of the prototype were enjoyable, for example. the endless gameplay.

The next category is "*Social Barrier*". Since many participants did not know the partner they were playing with, we had a good opportunity to test if our concept would break the ice between strangers. The feedback we got was very positive. People who did not know each other were easily talking to each other afterwards. They claimed that in a festival setting, they would invite the other to grab a drink together. However, we also asked whether they would step in if they saw a stranger needing help to start POZE. This was really divided, some people said they would help, while others said they would be too shy to. We also asked if they would invite a stranger to play with them. In this case, the opinions were equally divided again.

The first to last category is "*Physical Activity*". A lot of people commented on the physical aspect and how they had to move to reach the goal. Many people liked the constantly moving aspect and the fact that they had to stay physically active. Participants loved that they were challenged to get to a place and to keep going.

The last category is "*Cooperation*". One thing that was really clear was that everyone saw that cooperation and teamwork was necessary to complete the task. Nonetheless, there was a group

who had contradictory comments. The last group of participants claimed that they did not feel the need to communicate while the other participants were talking to each other and helping the entire time. Some people did not think communicating was necessary to achieve the task while most did talk to each other. They all sometimes had to divide the squares in the middle. Some communicated with body language, while others communicated through talking. We also analysed the data we got from the questionnaire. The output from this could help us draw conclusions. We found that all participants but 2 increased their excitement after the experiment. The 2 who did not increase already marked 5 for their excitement before the experiment and filled in the same afterwards. For the second question there was some confusion about the terminology and many participants confused the term "arousal" (i.e. intensity of emotion) with sexual arousal. However, after explaining it, many people still felt like they had more intense emotions after the experience and filled in a higher value for arousal. However, due to the confusion, we will not take the answers on this question in consideration. On the final question, regarding positivity, we got mixed results. 4 participants increased their positive feelings, and 6 participants felt the same afterwards from which 2 were already at the maximum before the user test. We could see from the feedback people were generally happier afterwards. In the section "Conclusions" we will discuss more about the outcomes of the user test.

Future

POZE turned out to be very successful among the public (testers and teachers). Most importantly, it has gained the interest of our client, Jos Feijen, director of the Effenaar.

The client has stated that he is interested in taking POZE further with our help and the help of professional software engineers and graphic designers from January 2018 on. His plan is to implement POZE at an outdoor festival held in Eindhoven in June 2018. Among the improvements that could be implemented in the experience, we can list the following: graphical improvements, sound visualisation and score systems. We will elaborate more on the latter two in the following paragraphs.

At its current state, POZE does not have any relatedness between the sound and the visuals apart from the fact that the background corresponds with the song. In order to emerge the players more into the reality of POZE, some real-time sound visualisation should be introduced. Regarding the scoring system, some feedback has been received regarding competition between teams. Some users claimed that it would be more intriguing to play if a score board would be implemented. In this way, all the passers by would see the scores of previous teams and would be more motivated to participate themselves.

After reviewing the feedback and outcome from our user test we can draw some conclusions about our concept, prototype and our project.

Looking back, we can see that we succeeded in achieving our ultimate objective: "Helping people connect by giving them a goal they can only achieve by cooperating." We created a memorable, fun, interactive, collaborative experience which can be used in a festival setting. We learned that by giving people a physical memory like a picture or a GIF, it could help them share a stronger bond.

Regarding the reactions received from all the users, POZE would prove to be a successful side activity at a big party or a festival. However, considering some valuable feedback received at the user test, variations on the same concept could be implemented.

Making it competitive among teams is always a good idea for the more ambitious participants who prefer to showcase their teamwork skills. Another option could be giving users pose suggestions on the screen to increase the difficulty of the game but also the contact (both physical and cooperative) between the players. On the other hand, a few users emphasized that not making too much body contact is what makes it comfortable to play. Making it more visually interesting is always an option: varying character heads which correspond with the song or letting players choose their own head could add to the experience and make it more fun to play. Because some of the users proved to be introverts and claimed to not wish to initiate

contact with a stranger, a method to engage them more easily at events could be having a person on the side coordinating the experience and picking random people from the crowd to play together. All in all, there are many ways to "spice up" POZE and make it into an enjoyable activity for everyone.

Because of limited time and resources, there are many aspects that were not taken into consideration. One of the most important is the fact that players are going to be watched from the side by passers/standers by. Theory says that performance of people might be influenced by the fact that they know they are being watched. However, people's attention and confidence is affected when consuming alcohol, therefore, this theory might not apply. Another aspect which was not considered is the fact that players will most probably be tipsy/drunk while playing POZE. Therefore, the difficulty and the dynamics could be adapted for people who are not in their clearest state of mind.

In conclusion, POZE constitutes a great way to keep the spirits up and bond with (new) friends while taking a break from the fuss of a party or festival. It also can be a great starting point for creating new and immersive technologies to be incorporated in the entertainment industry.

Conclusion

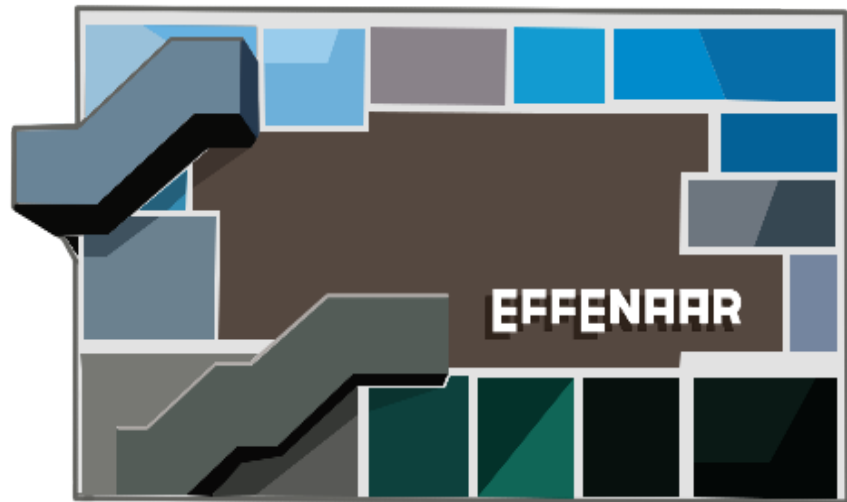
Acknowledgements

In this project we got help from different people which we would like to thank in this chapter. First of all, we would like to thank our coach and project coach, Rong-Hao Liang and Jun Hu. Rong-Hao has helped us with the code and programming, provided the Kinect and given us a lot of valuable feedback.

Next to this we want to thank Jos Feijen for his feedback, time and support throughout the project. We have had many meetings with him and he will help us further develop our concept.

We would also like to thank the Effenaar and Stephanie van den Hurk for providing the room and all the equipment and help for our user test. Being able to test in the Effenaar in the real setting improved our user test and helped us a lot.

Thanks to all of you, our project has become the success that it is now.



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Bianca's reflection

POZE is my first design project in the faculty of Industrial Design. It, for sure, has presented a lot of opportunities to learn not only about new technologies, but also about ways of working in a design process, in a team of designers and about myself as a team player.

The first half of the project has been a rocky start for me. Since I was assigned to a team with two experienced ID graduates, I was not as confident as I should have been. I had a lot of good ideas that were rejected in the beginning by one team member who assigned herself to make all the important decisions. Subsequently, the final idea (POZE) has been one of my initial ideas that was rejected. From this I have learned that I need to stand my ground and follow my guts whenever it comes to making group decisions. Even though it is a group project, the brainstorming process should be a collaborative process, not a one person task. I learned that cooperation is not about giving in another teammate's controlling attitude, but standing up for your ideas and making your point, as well as taking other people's points of view into consideration. The second half of the project went significantly smoother. After the team modification, communication between the team members went really well. The only struggles that we had were technical problems.

I have to say I am really glad I chose this squad. This project has helped me understand the mechanics of a design process, while keeping me active in practicing my technical skills. I am thankful I got a chance to practice my programming skills (which are not that evolved) and learn

Processing and how to work with Kinect. All the technical difficulties and the fact that we managed to solve them in the end have given me the confidence that I am able to overcome any problem that seems disastrous at the beginning. Furthermore, I managed to practice my mastery of InDesign and Photoshop.

From another angle, I am happy we had the chance to work with such a strong client. I am very thankful we had the opportunity to work with the Effenaar since I am a big fan of the smart entertainment industry and I would love to work in it one day.

Moreover, this project has shown me the openness and availability of Dutch and TU/e people. I was pleasantly surprised to see how willing Mr. Feijen has been to give us valuable feedback and present all the resources the Effenaar has to us. On top of that, all the coordinating teachers have always been there for us with interesting suggestions and constructive criticism. I have learned that I should not be afraid to go and ask for help or consultations from the people that are available for us. Growing up in a culture where asking for help is viewed more like asking for a favour, it has been very unusual for me to understand this.

All in all, I am very content with the outcome of my first design project and very happy with the cooperation between me and Luuk. I have learned a great deal of things and I have been given a boost of confidence.

I managed to make new connections and get acquainted with the Industrial Design way of working and I am proud of what we have achieved.

Luuk's reflection

In the beginning of this project we started with 3 group members. We did a lot of brainstorming and idea generation. We discussed about our different interests and project directions. We had a lot of differences and heavy long discussions. I learned that it is important to show my meaning in those discussions, because I will lose motivation if I am not interested in something. Looking back at this project I learned a lot about myself and how I work in groups. In previous projects I was too much on the background in the beginning and thus in this project I wanted to try to step to the foreground. This was really difficult in the beginning, certainly since of one of my team members was quite controlling. She wanted to take the lead in the project and make the important decisions. After some time she did not only take the important decisions, but after dividing tasks, she also started to interfere with my task. When this happened I came up for myself, and my personal ideas and input. I learned in my internship and FBP that I can rely on my own designer qualities and I used this knowledge to hold my ground. Sadly my fellow group member did not agree, and eventually (due to personal reasons) she left the project.

After this, the communication in our group went way better and we worked together better. I learned that stepping up for yourself can be really difficult and tough sometimes but still it is really important to do to stay motivated. From this experience I have learned it is important to always immediately show your opinion about a concept or idea.

Besides this before she left, we spend a lot

of time discussing and sharing interests. We could not really make decisions. We when we took a decision, we afterwards still took too long asking feedback. We spend time on gathering resources for a concept, however when we got feedback on the concept we decided to change this concept. Looking back we can see that gathering the resources was a waste of time since we never used them. I learned that it is important to set priorities, not go fully into one concept if you have not verified it and you have not gotten any feedback on it. This could save a lot of time.

After this we also spend a lot of time on the research of the TNO. My group wanted to use it, however it did not really fit our concept. I learned that it is important to not force fit something in the project because you want to use it. It did not make our concept any stronger in the way we wanted to add it, so we decided to drop it. This was a good and really important decision for our project. I learned that it is important to check if something actually make your project our concept better in any way, and if not you should consider if you should keep it. I learned you should not use something for the sake of using it. In this project we all did a lot of research. We wanted to back everything up with research. From doing a lot of research in the project, I learned that research can be a way to find your concept. When we found the research about syncing emotions, we decided we wanted to continue with that. This shaped our concept a lot, and this way your concept is immediately backed up by research. This is a good way of generating new ideas or shaping your concept.

Luuk's reflection

In my project I did a lot about programming. I learned a lot about programming for example how to use Kinect. I learned that there are a lot of ways to accomplish your goal in programming, but I might be difficult to find the best solution. I learned that talking to a lot of different people is a good idea. There are a lot of people with different expertise's, knowledge and ideas of how to make your prototype work. Also asking around when you are stuck with a piece of code, asking around is a good idea. There are a lot of people who for example have worked with Kinect, and one line of code someone gave us, helped us a lot. It is not necessary to reinvent the wheel every time so just asking around can save really much time.

In this project we also did a really big, well planned user test. I also learned a lot from this. We did this user test in the Effenaar. I learned that a good planning is really important for a user test. I made a google docs document in which people could subscribe themselves to a certain timeslot. This was really useful. This way we could keep track who wanted to test when, and how many participants we had at that time.

Survey questions

Name of the participant:

Age:

Sex: M / F

1. On a scale from 1 to 5, how excited do you feel? (prior to the experience)

1. Not at all				5. Very
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2. On a scale from 1 to 5, how aroused do you feel? (prior to the experience)

1. Not at all				5. Very
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3. On a scale from 1 to 5, how positive do you feel? (prior to the experience)

1. Not at all				5. Very
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1. On a scale from 1 to 5, how excited do you feel? (after the experience)

1. Not at all				5. Very
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2. On a scale from 1 to 5, how aroused do you feel? (after the experience)

1. Not at all				5. Very
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3. On a scale from 1 to 5, how positive do you feel? (after the experience)

1. Not at all				5. Very
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Name of the participant: *Marieke Wijngaard*
Age: *21*
Sex: M / *(F)*

1) On a scale from 1 to 5, how **excited** do you feel? (prior to the experience)

1. Not at all		<i>X</i>		5. Very
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2) On a scale from 1 to 5, how **aroused** do you feel? (prior to the experience)

1. Not at all		<i>X</i>		5. Very
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3) On a scale from 1 to 5, how **positive** do you feel? (prior to the experience)

1. Not at all			<i>X</i>	5. Very
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1) On a scale from 1 to 5, how **excited** do you feel? (after the experience)

1. Not at all			<i>X</i>	5. Very
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2) On a scale from 1 to 5, how **aroused** do you feel? (after the experience)

1. Not at all		<i>X</i>		5. Very
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3) On a scale from 1 to 5, how **positive** do you feel? (after the experience)

1. Not at all			<i>X</i>	5. Very
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Name of the participant:

Age: 22

Sex: M / F

Yolien ter Brugge

1) On a scale from 1 to 5, how **excited** do you feel? (prior to the experience)

1. Not at all		X		5. Very
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2) On a scale from 1 to 5, how **aroused** do you feel? (prior to the experience)

1. Not at all		X		5. Very
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3) On a scale from 1 to 5, how **positive** do you feel? (prior to the experience)

1. Not at all			X	5. Very
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1) On a scale from 1 to 5, how **excited** do you feel? (after the experience)

1. Not at all				5. Very X
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2) On a scale from 1 to 5, how **aroused** do you feel? (after the experience)

1. Not at all				5. Very X
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3) On a scale from 1 to 5, how **positive** do you feel? (after the experience)

1. Not at all				5. Very X
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Name of the participant: OMAR

Age: 20

Sex: M / F1) On a scale from 1 to 5, how **excited** do you feel? (prior to the experience)

1. Not at all		X		5. Very
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2) On a scale from 1 to 5, how **aroused** do you feel? (prior to the experience)

1. Not at all		X		5. Very
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3) On a scale from 1 to 5, how **positive** do you feel? (prior to the experience)

1. Not at all			X	5. Very
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1) On a scale from 1 to 5, how **excited** do you feel? (after the experience)

1. Not at all				5. Very X
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2) On a scale from 1 to 5, how **aroused** do you feel? (after the experience)

1. Not at all X				5. Very
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3) On a scale from 1 to 5, how **positive** do you feel? (after the experience)

1. Not at all			X	5. Very
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Name of the participant: *Galina*
Age: *28*
Sex: M / *F*

1) On a scale from 1 to 5, how **excited** do you feel? (prior to the experience)

1. Not at all	<i>X</i>			5. Very
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2) On a scale from 1 to 5, how **aroused** do you feel? (prior to the experience)

1. Not at all	<i>X</i>			5. Very
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3) On a scale from 1 to 5, how **positive** do you feel? (prior to the experience)

<i>1. Not at all</i>	<i>X</i>			5. Very
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1) On a scale from 1 to 5, how **excited** do you feel? (after the experience)

1. Not at all		<i>X</i>		5. Very
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2) On a scale from 1 to 5, how **aroused** do you feel? (after the experience)

1. Not at all	<i>X</i>			5. Very
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3) On a scale from 1 to 5, how **positive** do you feel? (after the experience)

1. Not at all			<i>X</i>	5. Very
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Name of the participant: P01

Age: 21

Sex: M / F

1) On a scale from 1 to 5, how **excited** do you feel? (prior to the experience)

1. Not at all		X		5. Very
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2) On a scale from 1 to 5, how **aroused** do you feel? (prior to the experience)

1. Not at all		X		5. Very
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3) On a scale from 1 to 5, how **positive** do you feel? (prior to the experience)

1. Not at all			X	5. Very
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1) On a scale from 1 to 5, how **excited** do you feel? (after the experience)

1. Not at all			X	5. Very
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2) On a scale from 1 to 5, how **aroused** do you feel? (after the experience)

1. Not at all		X		5. Very
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3) On a scale from 1 to 5, how **positive** do you feel? (after the experience)

1. Not at all				5. Very
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Name of the participant: Gabriela Feijoo
Age: 27
Sex: M / (F)

1) On a scale from 1 to 5, how **excited** do you feel? (prior to the experience)

1. Not at all			X	5. Very
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2) On a scale from 1 to 5, how **aroused** do you feel? (prior to the experience)

1. Not at all			X	5. Very
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3) On a scale from 1 to 5, how **positive** do you feel? (prior to the experience)

1. Not at all				5. Very X
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1) On a scale from 1 to 5, how **excited** do you feel? (after the experience)

1. Not at all				5. Very X
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2) On a scale from 1 to 5, how **aroused** do you feel? (after the experience)

1. Not at all				5. Very X
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3) On a scale from 1 to 5, how **positive** do you feel? (after the experience)

1. Not at all				5. Very X
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Name of the participant: RARES BRATEAN
Age: 22
Sex: M / F

1) On a scale from 1 to 5, how **excited** do you feel? (prior to the experience)

1. Not at all			X	5. Very
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2) On a scale from 1 to 5, how **aroused** do you feel? (prior to the experience)

1. Not at all		X		5. Very
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3) On a scale from 1 to 5, how **positive** do you feel? (prior to the experience)

1. Not at all			X	5. Very
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1) On a scale from 1 to 5, how **excited** do you feel? (after the experience)

1. Not at all				5. Very
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2) On a scale from 1 to 5, how **aroused** do you feel? (after the experience)

1. Not at all				5. Very
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3) On a scale from 1 to 5, how **positive** do you feel? (after the experience)

1. Not at all				5. Very
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Name of the participant:

Age:

Sex: M / F

Han Wen Chang 1) On a scale from 1 to 5, how **excited** do you feel? (prior to the experience)

1. Not at all				5. Very
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2) On a scale from 1 to 5, how **aroused** do you feel? (prior to the experience)

1. Not at all		2	4	5. Very
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3) On a scale from 1 to 5, how **positive** do you feel? (prior to the experience)

1. Not at all			3	5. Very
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1) On a scale from 1 to 5, how **excited** do you feel? (after the experience)

1. Not at all				5. Very
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2) On a scale from 1 to 5, how **aroused** do you feel? (after the experience)

1. Not at all				5. Very
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3) On a scale from 1 to 5, how **positive** do you feel? (after the experience)

1. Not at all			3	5. Very
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Name of the participant: *Wayan Traversat*
Age: *23*
Sex: *M* / F

1) On a scale from 1 to 5, how **excited** do you feel? (prior to the experience)

1. Not at all				5. Very
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2) On a scale from 1 to 5, how **aroused** do you feel? (prior to the experience)

1. Not at all				5. Very
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3) On a scale from 1 to 5, how **positive** do you feel? (prior to the experience)

1. Not at all				5. Very
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1) On a scale from 1 to 5, how **excited** do you feel? (after the experience)

1. Not at all				5. Very
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2) On a scale from 1 to 5, how **aroused** do you feel? (after the experience)

1. Not at all				5. Very
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3) On a scale from 1 to 5, how **positive** do you feel? (after the experience)

1. Not at all				5. Very
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Name of the participant:

Age:

Sex: M / F

Nynke de Jong

1) On a scale from 1 to 5, how **excited** do you feel? (prior to the experience)

1. Not at all		X		5. Very
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2) On a scale from 1 to 5, how **aroused** do you feel? (prior to the experience)

1. Not at all	X			5. Very
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3) On a scale from 1 to 5, how **positive** do you feel? (prior to the experience)

1. Not at all			X	5. Very
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1) On a scale from 1 to 5, how **excited** do you feel? (after the experience)

1. Not at all			X	5. Very
---------------	--	--	---	---------

2) On a scale from 1 to 5, how **aroused** do you feel? (after the experience)

1. Not at all		X		5. Very
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3) On a scale from 1 to 5, how **positive** do you feel? (after the experience)

1. Not at all			X	5. Very
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Brief Interview Transcriptions

Group 01

General thoughts:

"I like it...I think it's a fun way to....well, you keep going and you have to work together"

"Yeah it's nice that you have to work together and really stretch"

"Yeah you don't have to sit down and collapse (?) but you really have to move "

Do you think you had to cooperate and have the same goal?

"Yes, you have to do the 9 squares together, there is no way you can do them alone' some of the patterns we couldn't figure out so I changed positions to see if I can also get some squares of my partner."

"Yeah, the ones in the middle we had to do together and the ones on the side we had to do alone"

Do you think the change of songs gives you motivation to keep going?

"Uhm..idk sometimes I didn't hear the songs because I was so focused"

Do you think it would work if you had to work together with strangers?

"I think so, because you don't have to touch each other and you don't have a deep conversation, so i think this is a lower threshold to connect with stranger than in the normal way - by starting a conversation"

Would you join someone if you saw they were alone and they wanted to play?

"Yes, I would"

Do you think you got closer to each other?

"We didn't really communicate like yeah you should do this part and this part, the parts in the middle we did them together but I still felt like I had my part to fulfill my part"

Do you think this would fit in a 90's themed party/festival?

"Yes, I think it would fit but maybe sometimes is goes a little bit slow because it is challenging' for now it is fun to do but i think for drunk people it should be a little easier"

"I think this would make for a nice side activity t take a break from the crowd and the music"

What do you think about giving you pictures of funny poses afterwards?

"I think it would be a great memory because while I was playing I was thinking I look very funny"

"I wouldn't like to if everyone saw the pictures of us, I would like to only see them myself"

Group 02

General thoughts:

"It was really fun"

"It was really good for exercising, but for me it was really hard to understand that you could go in front"

"I was expecting the music to be more related to the position of the squares"

"It's nice that you can play endlessly and it doesn't get boring because it is random and it is easy sometimes, and very difficult sometimes"

Do you think you had to cooperate and have the same goal?

"Yes, because sometimes we had to switch to reach the squares"

Do you think the change of songs gives you motivation to keep going?

Do you think it would work if you had to work together with strangers?

"I think that would be difficult but with friends you could make it work"

Would you join someone if you saw they were alone and they wanted to play?

"I think that if there is already someone who wants to play waiting for someone else to play then people would be embarrassed to go. But, if there are already some more people playing, they would gather the courage to go."

"I would invite strangers to play with me"

Do you think this would fit in a 90's themed party/festival?

"I think it would"

What do you feel like you're more hyped?

"It definitely works against stress, you get happier"

"I feel more hyped because it keeps me active. I feel more excited"

What do you think about giving you pictures of funny poses afterwards?

"Yes, I would like that, or a video of what you did would also be nice"

Group 03

General thoughts:

"I don't think i would play it for too long at a festival, but I would try it out 5 minutes"

"I liked that it challenged you to get to a place"

"It also broke the social barrier"

Do you think you had to cooperate and have the same goal?

"Yes, because sometimes we had to switch to reach the squares"

Do you think the change of songs gives you motivation to keep going?

Do you think it would work if you had to work together with strangers?

"I wouldn't invite, but if someone stands by and he wants to join then I would let them play but I wouldn't drag someone with me "

Would you join someone if you saw they were alone and they wanted to play?

"I would give a hand to help them, it would be funny"

Group 04

General thoughts:

"I love the idea, it is really fun! I love the cooperation!"

"It would be cool to make it competitive with completing levels and getting points to inspire other people to play and compete with your score"

Do you think you had to cooperate and have the same goal?

"Yeah, of course! I was like GET IT WITH YOUR BUTT! USE YOUR LEG! I think we communicated well"

Do you think it would work if you had to work together with strangers?

"I wouldn't invite strangers to play but it would be nice if there was someone coordinating the game and they would pick random people to play, then I would play with strangers"

"I also think it is contagious. If you see people playing and you figure it out you also want to play"

Would you join someone if you saw they were alone and they wanted to play?

"Yes, I would, why not "

Do you think this brings people closer to each other?

"Yes but also it would be more effective if you had positions in which they had to lift each other up or intertwine their limbs, or give hints of types of positions they could adopt"

"I think that if you share this experience, afterwards you can high five and go grab a beer together"

Do you think it would fit better in a festival/party setting?

"I think it would fit better in a festival setting especially in the morning where people don't know what to do"

"It is a good activity to get away from the main thing - you can just chill and have fun - it works in that setting"

What do you think about giving you pictures of funny poses afterwards?

"I would love that, or make GIFs"

Group 05

General thoughts:

"IT'S SUUUUPER! I like the fact that you have to freeze in the position because it's fun for you but i guess it's funner for the people looking at you, it's like a group activity"

"I think it is fun but sometimes it is slow because you have to wait for the other"

"The heads are very funny! I think you could change the head based on the music"

"It would be great to play with 3 to 5 people!"

Do you think you had to cooperate and have the same goal?

"No, I was about to say, that's the one aspect that you should make more evident - maybe make the squares have colors for each person "

"I don't agree, i think you should not separate the colors, but let the participants decide what part they should like: you do the top, I do the bottom"

"Maybe cluster the dots a little bit closer to each other so people come closer"

Do you think it would work if you had to work together with strangers?

"In this kind of environment I think people would love to play with each other"

"If they would be picked randomly, it could work"

Would you join someone if you saw they were alone and they wanted to play?

"If someone came and invited me to a party to play this with them I would be creeped out "

"If I saw someone play already maybe I would have a try yes"

Do you think this brings people closer to each other?

"Yes, if you meet somebody randomly in the club, one way to bond is to play this!"

"Whenever you have an activity with another person there is this kind of bond formed, like when you go up to someone and they speak the same language"

"I would definitely invite afterwards the person I played with for a beer just to talk about it "

Do you think it would fit better in a festival/party setting?

"I think it is fun to watch and have people gather to see how people are playing"

"I think it could work as a group activity on the side, maybe next to the smoking area as people who go to smoke want to take a break"

What do you think about giving you pictures of funny poses afterwards?

"Yeah that would be cool! It would add to the experience, or maybe a short clip!"

"If you want to have people bond with each other then having a picture together is something to start with! You can ask them for their facebook, share the picture with them"